

REMARKS

Applicant expresses appreciation to the Examiner for consideration of the subject patent application. This amendment is in response to the Office Action mailed September 10, 2004.

Claims 1-24 were rejected.

Claims 1-24 were originally presented. Claims 1-24 remain in the application. Claims 1 and 17 were amended to make formal changes. No new matter was added to claims 1 and 17. No claims have been added.

Claim Rejections - 35 U.S.C. § 102

Claims 1-24 (including independent claims 1, 9, and 17) were rejected under 35 U.S.C. § 102(b) as being anticipated by Moore et al. (U.S. 4,799,106) (hereinafter “Moore”).

In order to most succinctly explain why the claims presented herein are allowable, Applicant will direct the following remarks primarily to the originally presented independent claims 1, 9, and 17 with the understanding that once an independent claim is allowable, all claims depending therefrom are allowable.

The Moore reference discloses an apparatus for dividing a thermal image into certain defined brightness bands. Each defined brightness band can then have a predefined gamma correction curve applied to pixels within the band. A microprocessor is used to determine the appropriate correction curve for each brightness band. Data representing the appropriate correction curve is then loaded into RAM. If a brightness band changes to an extent, data representing a new gamma curve is loaded into RAM in replacement for the data previously stored therein. (See Col. 6, Lines 3-25). Each gamma curve contains the same amount of data that is loaded into the RAM. Thus, each gamma correction curve has the same level of precision.

In contrast, the present invention (U.S. 2003/0128299 A1) (hereinafter “Coleman”) teaches a method of reducing the amount of memory used for gamma correction in a video display. (See ¶ 26 of specification). Gamma correction typically requires higher levels of precision at low light levels. For example, in a system with 12-bit color precision, there are 2^{12} (4096) different levels of brightness. Changes in brightness from 0 to 255 can be quite noticeable to the human eye. Therefore, each of the first 256 levels of brightness may require a

specific gamma correction coefficient. However, changes in brightness from 256 to 4095 may be less discernable to the human eye. Therefore, gamma correction may be affected with lower precision. The same gamma correction coefficient may be able to be used over a range, such as 15 different levels. For example, the same gamma correction coefficient can be used from level 256 to 271, while another coefficient can be used on levels 272 to 287, etc. (See Col. 6 in FIG. 3). Thus, in the example, a first level of precision is used for gamma correction from levels 0 to 255 and a second level of precision is used for gamma correction from levels 256 to 4095.

Coleman claims the ideas expressed in the specification. Specifically, independent claim 1 states, in part:

providing a first level of gamma correction to the first range of pixel values at a first level of precision;
providing a second level of gamma correction to the second range of pixel values at a second level of precision, different than the first level of precision.

As claimed in claim 1, Coleman is distinct from the information disclosed in Moore. **Moore does not teach different levels of precision between different ranges of pixel values. Rather, Moore teaches applying different gamma correction curves having the same level of precision to different ranges of pixel values.** The same amount of memory is used for each gamma correction curve in Moore. (See Moore Col. 6 Lines 19-25). Moore fails to teach a method for reducing the amount of memory used for gamma correction in a video display by providing a first and second level of gamma correction with the first and second levels having different precisions. Therefore, Applicant respectfully submits that independent claim 1 is allowable, and urges the Examiner to withdraw the rejection.

Similarly, independent claim 9 in Coleman states, in part:

a first gamma lookup table...to provide a first level of gamma correction to a first range of pixel values at a first level of precision; and
a second gamma lookup table...to provide a second level of gamma correction to a second range of pixel values at a second level of precision, different than the first level of precision.

Independent claim 17 states, in part:

a gamma lookup table...to provide a first level of gamma correction to a first range of pixel values at a first level of precision and a second level of gamma correction to a second range of pixel values at a second level of precision, different than the first level of precision.

Both independent claim 9 and 17 disclose **first and second levels of gamma correction** to be applied to first and second ranges of pixel values **at first and second levels of precision** respectively, wherein the first level of precision is different from the second. As discussed above, Moore fails to teach using different levels of precision in gamma correction lookup tables. Rather, each of the different gamma correction curves disclosed in Moore has the same level of precision. Therefore, Applicant respectfully submits that independent claims 9 and 17 are allowable, and urges the Examiner to withdraw the rejections.

Claims 2-8, 10-16, and 18-24 are dependent on claims 1, 9, and 17 respectively. Rejection of the dependent claims 2-8, 10-16, and 18-24 should be reconsidered and withdrawn for at least the reasons given above with respect to the independent claims. The dependent claims, being narrower in scope, are allowable for at least the reasons for which the independent claims are allowable.

CONCLUSION

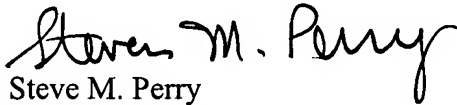
In light of the above, Applicant respectfully submits that pending claims 1-24 are now in condition for allowance. Therefore, Applicant requests that the rejections and objections be withdrawn, and that the claims be allowed and passed to issue. If any impediment to the allowance of these claims remains after entry of this Amendment, the Examiner is strongly encouraged to call Steve M. Perry at (801) 566-6633 so that such matters may be resolved as expeditiously as possible.

No claims were added. Therefore, no additional fee is due.

The Commissioner is hereby authorized to charge any additional fee or to credit any overpayment in connection with this Amendment to Deposit Account No. 20-0100.

DATED this 10th day of December, 2004.

Respectfully submitted,



Steve M. Perry
Registration No. 45,357

THORPE NORTH & WESTERN, LLP
Customer No. 20,551
P.O. Box 1219
Sandy, Utah 84091-1219
Telephone: (801) 566-6633